

ART. VIII.—*Thoughts on Serous Polyæmia.* By R. E. LITTLE, M. D.,
Quincy, Florida.

IN the extreme portions of the southern states is to be found a class of diseases which we apprehend is to be rarely met with in any other part of the Union—save now and then in the densely populated cities of the seaboard. We refer to those diseases arising not from a paucity of blood, but from an opposite condition of the system, in which there is an increase of the serous, without, however, a corresponding addition to the quantity of crassamentum, constituting what may properly be denominated serous polyæmia. The state of the system to which reference is made, is usually regarded as essentially dependent on a deficiency in the amount of the circulating fluid, there being at the same time an unnatural proportion in the relative quantity of each of its constituents, but which we are convinced is to be attributed to the cause assigned above, an unhealthy increase in the quantity of blood, with a modification in the usual proportions of serum and crassamentum. A comparison of the symptoms of anæmia, limiting the term to that condition of the circulatory system to which it is intended to apply, and that opposite state to which it is also applied, without, however, a proper regard being paid to a dissimilarity in several prominent pathognomonic symptoms, and the absurdity of applying it so indiscriminately will be manifest. A distinction should be made, otherwise two diseases essentially different are liable to be confounded, and thus produce an unsettled *methodus medendi*. Strangers visiting the southern states, are astonished at the number of pale and bloated faces to be seen, especially among children, faces which attract but little notice from the inhabitants of the country, so long have they been regarded as the result of an *unhealthy location* (malarial), or a *deranged liver*, the latter being the commonly assigned cause. To neither of the above causes, we venture to assert, are they to be attributed—save in a very few cases—an assertion which we are assured will be seconded by a majority of the well-informed and observant members of the profession. During our residence in Florida, we have been called on to treat many cases of what we have denominated serous polyæmia;—the results of observations made during their progress we design presenting in the present paper.

Symptoms of disease are manifested not only in the appearance of the countenance—pale and bloated—but also in the contour of body, the abdomen large, limbs emaciated, and muscles inelastic. The physical appearance of the patient to an experienced eye, indicates the true character of the disease. The slightest exertion produces difficulty of breathing, increased action of the heart, and in a very short time pulsations in many of the larger veins are perceptible, particularly in those of the neck. The

face has a cadaverous appearance, the eyes lose their accustomed brilliancy, suffusion of the cheeks rarely appears, and when it does it is circumscribed : in short the intellectual manifestations (physically) are in a great measure wanting. In the early stages of the disease the pulse is usually small and feeble, occasionally intermittent, but as the disease advances, it is apt to become full, and convey, when felt at the wrist, an idea that the finger is placed on the femoral instead of the radial artery, a phenomenon which disappears, however, a short time before dissolution. The appetite is capricious, at one time ravenous and desiring articles not *usually* esteemed luxuries, such as paper, leaves and buds of trees, pieces of slate, red clay, &c., while again the stomach revolts at anything presented. The breath is fetid, the bowels loose and constipated by turns, and the discharges of an ash colour. Not unfrequently before death, a dropsical accumulation occurs in one or more of the great cavities of the body, and occasionally it is universal.

But the most remarkable features of the disease are the peculiar sounds given out by the larger blood-vessels, both veins and arteries. Bouillaud says that if the ear be applied over an artery, a dull *rubbing* sound may be heard; though feeble, it may be distinctly detected. Aware of this fact, the sounds attendant on the disease in question, when recognized in one of the first patients which came under our care, were not deemed altogether unnatural, but subsequent examinations convinced us, that they were louder and longer than those given out during a state of health, and consequently the result of disease. In every case since treated, stethoscopic examinations have been made, and we regard such sounds as being almost certainly indicative of the existence of serous polyæmia, as they are to be heard very rarely under any other condition either of the blood-vessels or the blood itself. V. S., a boy fifteen years of age, a native of South Carolina, but for the last six years a resident of Florida, presented himself to us as the subject of "liver complaint." His physical appearance at first sight indicated the nature of his disease. A walk of a mile had almost completely exhausted him. His breathing was hurried, pulse 130 and full, the carotids beating so violently as to be visible at the distance of twenty or thirty feet; abdomen large, limbs emaciated, and his face of a cadaverous appearance. He lamented his indisposition to apply himself to any steady employment. A stethoscope was applied to the precordial region; the *bruit de soufflet* was distinctly heard, inexperience leading us to imagine the existence of a contracted state of some of the cardiac orifices. The same sound was heard over the course of the carotid and femoral arteries. At a subsequent examination the *bruit de soufflet* failed to be heard in the precordial region, although it was still clearly to be distinguished in the arteries. In the first instance, the patient had been taking exercise on foot: in the latter he had abstained from exercise for a day or two. A majority of the cases seen have exhibited the same symp-

toms in a greater or less degree, the *rubbing* sound disappearing gradually as the health was restored.

The cause of this grating sound has been attributed to induration of the valves of the heart, a particular vital condition, a spasm or tension of the artery, &c. It *may* depend on either of these causes in some cases, but our own opinion is, that it is caused in all cases similar to the above, by a superabundance of blood, as it is never heard until the disease is considerably advanced. An increase in the quantity of blood demands an increased action of the heart to carry on its circulation; the blood-vessels are consequently unnaturally distended; the distension being greater at some points than at others, and the heart giving a "*coup de fouet*" at each diastole: hence the sounds. The loudest sounds are heard in those vessels nearest the centre of circulation, for instance in the subclavian and carotid arteries. There is frequently a difference between the right and left carotids, the left giving out the loudest sound, which is capable of being increased by pressure moderately applied, or entirely stopped by compressing the vessels between the point where the ear is applied and the heart. Position also influences the intensity of the bruit, an erect posture increasing, a recumbent diminishing it. It is always heard most distinctly when the larynx is in its natural position; drawing it to the opposite side diminishes it, frequently entirely destroys it.

The blood drawn from patients labouring under serous polyæmia, after being allowed to stand for a short time, shows a very large amount of serum, with a corresponding diminution in the quantity of crassamentum, a state of things which we all know must exist when regard is paid to the elements which are used in its formation. To organic chemistry are we indebted for a knowledge of the influence possessed by physical laws over vital phenomena. No one at all acquainted with the late discoveries in chemistry, will for a moment deny the necessity of the inorganic elements of food, and to a partial absence of these, is in a great measure to be attributed the existence of serous polyæmia among children in some parts of the southern country. In the northern part of Middle Florida (in which we reside), the soil is deficient to a great extent in calcareous matter, and here lies the foundation of the evil. The principal bread-stuff of the inhabitants is Indian corn, (which under any circumstances contains less lime than wheat,) and as vegetable matter is influenced in its constituents by the character of the soil on which it is grown, it is obvious that maize cannot be well adapted to the nutrition of the system, wanting as it is in calcareous matter. The same may be said of all other vegetable matter growing in the country. Inferior animals feeding on such material, in a very short time feel the effects of a diet destitute of inorganic elements; they consequently seldom attain their natural growth, and are wanting in that soundness which characterizes those of their species which luxuriate in the pastures of a region rich in

calcareous matter, matter essential to the nourishment of the system. The diet of persons inhabiting a section of country partially destitute of some of the inorganic constituents of the human body, must after a time produce a derangement in the animal economy, the derangement being sooner manifest in the young than in the adult subject, and to a much greater extent. This is manifest in our own immediate neighbourhood; very few of the natives of the country are over twenty years of age, their parents having emigrated principally from the Carolinas. Many of the former suffer greatly from the use of food destitute of inorganic elements, indicated by their pale and bloated faces, while the latter having emigrated after a full development of the system, muscular and osseous, and consequently not demanding so imperatively as their offspring a supply of mineral matter for a healthy action of their system, suffer comparatively very little. Experiments instituted by Chossat, demonstrate the necessity of graminivorous animals being supplied with lime. Pigeons which he supplied with wheat, an article containing but about 2·80 per cent. of lime, became after a time emaciated and finally died, but when lime was added to their food, they increased in plumpness. The bones of those that died exhibited a brittleness not at all consistent with a healthy state of the osséous system, a state of things frequently met with in the human subject during that period, when the process of ossification is going on most rapidly. Dr. Le Conte, in an article recently published on Geophagy, mentions in confirmation of the necessity of inorganic elements in the food of all animals, that the cattle in one of the counties of Georgia, subsist on a species of grass destitute of phosphatic or calcareous matter, and that as a substitute for these principles in their food, are in the habit of chewing bones, which they do with the head elevated, to prevent the saliva from flowing from the mouth, until the bulk of bony matter is reduced to a very small size, when it is rejected as being of no further service. These cattle are lean and of diminutive stature. Removal to a section of country with a different geological formation, does away with the habit, a habit the result of instinct. Upon the same principle may be explained the tendency in *some* children and pregnant women to dirt eating, nature urging them thus to supply the deficiency of, or increased demand for calcareous and saline ingredients in their ordinary food, a habit which experience has proved may be indulged in to a certain extent without invariably causing disease, especially if the subject of it be not confined to a limited number of articles of diet. We are more and more convinced from daily observation of the truth of the experiments of Magendie and others in regard to the necessity of a variety in diet. In the families of those who are in the habit of varying the diet from time to time, cases of serous polyæmia are rare, while in others where the same articles of diet are used for months in succession, the disease is common. So also is its prevalence influenced by the use of the flesh of wild and domestic animals: the former being much more likely to cause an unhealthy state of the

system than the latter. But enough has been said to give an idea of the probable cause of the disease.

The treatment pursued by us is simple, and usually attended with success. It consists in the exhibition of the different preparations of iron, in combination with mild aperients, together with a generous diet, the articles being often varied. When complicated with dropsical accumulations, an addition of diuretics to the ferruginous preparations, are of service. A steady perseverance in their use has seldom failed in our hands, if timely resorted to, in procuring an amelioration, if not an entire abatement of the symptoms.

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ART. IX.—*Enormous Steatoma removed from the side.* By J. M. FOLTZ, M.D., Surgeon of the Fleet, Brazil Station. [Communicated through Thos. Harris, M.D., Chief Bureau Med. and Surg., U. S. N.]

DON JOSE ROMEIN, æt. 54, Capitas of the Isle de Lobos (Seal Island), at the mouth of the Rio de la Plata, received a severe blow, many years ago, while engaged in killing seal, on the left side, equal distance between the crest of the ileum and the lower edge of the ribs. After the inflammation and swelling occasioned by the blow disappeared, a small tumour occupied the seat of the injury, in the centre of the left iliac region; but as it was unaccompanied by pain or any other inconvenience, it received no further attention at the time.

Gradually increasing in size, but without pain, it continued to occupy the same place for about four years, at the end of which time it had attained the size of a large fist, and rested over the anterior superior spinous process of the ileum. The pressure of his pantaloons now gave him some inconvenience, and at times the tumour became painful. Upon arranging his clothing in such a way as to obviate this pressure, the pain subsided, and the size of the tumour was not such as to interfere with the daily avocation of the patient.

The tumour continued to increase at a uniform rate until the present time, now 18 years, when it has reached a most enormous size, extending from the crest of the ileum, to which it is firmly bound, more than half way to the knee; while laterally, it extends from the inguinal region of the thigh over the glutei muscles, part of which it covers.

To enable himself to walk, the tumour is suspended in a broad band, with a pouch, which is secured round the waist, and with this assistance, he has heretofore been enabled to walk without much difficulty. A large *Poncho*, the constant dress of the *Gaucha* of South America, conceals the enlargement; and but few of his friends, until recently, were aware of his deformity.